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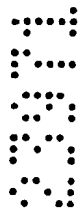
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(56) Related Art
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FLEXIBLE CARGO BARRIER BRACKET

Abstract

A cargo barrier assembly (1) for a motor vehicle which includes a wall member (2) having a periphery (3), and a plurality of spaced apart flexible straps (4) attached to
5 the wall member (2) adjacent the periphery (3) and engageable with internal surfaces of the vehicle. The strap (4) having a first portion (5) engageable with the wall member (2), a second portion (6) engageable with an internal surface of a vehicle and a flexible portion (7) connecting the first and second portions.



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FOR A STANDARD PATENT

ORIGINAL

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Flexible Cargo Barrier Bracket

ASSOCIATED PROVISIONAL APPLICATION DETAILS

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The following statement is a full description of this invention,
including the best method of performing it known to me/us:-

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FLEXIBLE CARGO BARRIER BRACKET

Technical Field

The present invention relates to cargo barriers. More particularly, though not exclusively, the invention relates to a cargo barrier for a motor vehicle.

Background of the Invention

Cargo barriers are installed in motor vehicles which have a common space for occupants and/or cargo, for example, a station wagon or panel van. The cargo barrier is usually installed and secured into the vehicle between the occupant and the cargo space.

The purpose of the cargo barrier is to reduce the potential injuries that may occur to the vehicle occupants from cargo moving forward in the event of an accident.

Furthermore, common barriers flex considerably during an impact. Such flexing is a disadvantage particularly if the frame of the barrier moves forward into the passenger compartment.

Currently, cargo barriers are installed in vehicles by connecting metal straps that are secured between the cargo barrier and the body of the vehicle. For example, existing cargo barriers have been described in Australian patent specifications AU 673313, AU 673312 and AU 664136. The construction of these metal straps and the way they are installed rigidly fixes the barrier to the vehicle.

Known existing mounting straps are generally of two types:

(a) Fixed straps. - rigid metallic straps.

The strap is rigidly fixed to the barrier and shaped to match the vehicle at the mounting point where it attaches to the vehicle. Details of this type of attachment strap is illustrated in Figure 1.

(b) Pivoting Strap.

The rigid metallic strap is pivoted at the connection to the barrier. Details of this type of attachment strap is illustrated in Figures 2 and 3.

All these existing mounting straps have varying limitations in aligning the straps to the vehicle body. For example, construction variations in the shape and size of body, straps, and cargo barriers, hinders the installation of straps to the mounting points in vehicles. Also, variations in installation locations of cargo barriers all compound the problems that occur in locating and installing cargo barriers into vehicles.

Accordingly, it would be desirable to have a strap which could facilitate the easy installation of a barrier into any type of motor vehicle.

Object of the Invention

It is an object of the present invention to overcome or ameliorate at least one of the disadvantages of the prior art, or at least to provide a useful alternative.

Summary of the Invention

Accordingly, the invention provides a cargo barrier assembly for a motor vehicle including:

a barrier wall member having a periphery, and

10 a plurality of spaced apart securing strap means attached to the wall member adjacent the periphery and engageable with internal surfaces of said vehicle;

said securing strap means includes a first portion rigidly fixed to said wall member, a second portion engageable with said internal surfaces of said vehicle and a flexible portion fixed to and flexibly connecting said first and second portions.

15 Preferably, said first and/or second portion include eyelets through which engagement means may pass.

Preferably, said engagement means are in the form of threaded fasteners.

Preferably, said barrier wall member is a planar sheet having a frame providing said periphery.

20 Preferably, said barrier wall member is metal mesh.

Preferably, said wall member is formed of plastics material.

In the preferred construction of the invention, the securing strap means, by means of its flexibility, is able to accommodate movement about all axes. The additional degrees of freedom provided improve installation and/or realignment of the barrier and particularly aid in locating barriers where changes in vehicle surface profiles occur at different mounting locations.

25 The flexible portion also preferably helps absorb shock should a piece of cargo impact against the barrier.



Brief Description of the Drawings

A preferred form of the present invention will now be described by way of example only with reference to the accompanying drawings, wherein:

Fig. 1 is a perspective view of a prior art strap;

5 Fig. 2 is a perspective view of another prior art strap;

Fig. 3 is a perspective view of another prior art strap; and

Fig. 4 is a perspective view of a strap according to the invention.

Detailed Description of the Preferred Embodiment

In Figures 1 to 3 of the accompanying drawings there is shown three prior art
10 straps for securing a cargo barrier to an internal surface of a motor vehicle. In Figure 1, a rigid metallic strap is shown fixed to the barrier and shaped to match the vehicle at the mounting point where it is to be attached.

In Figures 2 and 3, rigid metallic straps are shown that pivot at the connection to the barrier. An aperture is also provided for engagement with an internal surface of a
15 vehicle body by way of a threaded fastener.

Turning to Figure 4, a cargo barrier assembly 1 is shown which includes a barrier wall member 2 having a periphery 3. A plurality (only one shown) of spaced apart flexible straps (securing means) 4 are attached to the wall member 2 adjacent the periphery 3 and are engageable with internal surfaces of the vehicle (not shown).

20 Each strap (securing means) 4 includes a first portion 5 which is rigidly fixed to the wall member 2, a second portion 6 which is engageable with the internal surfaces of a vehicle (not shown) and a flexible portion 7 fixed to and flexibly connecting the first and second portions 5, 6.

25 The first and/or second portions 5, 6 may also include at least one aperture 8 (or eyelet) through which engagement means (not shown), such as a threaded fastener, can pass.

Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms.



The claims defining the invention are as follows:-

1. A cargo barrier assembly for a motor vehicle including:
a barrier wall member having a periphery, and
a plurality of spaced apart securing strap means attached to the wall member
5 adjacent the periphery and engageable with internal surfaces of said vehicle;
said securing strap means includes a first portion rigidly fixed to said wall member, a second portion engageable with said internal surfaces of said vehicle and a flexible portion fixed to and flexibly connecting said first and second portions.
2. An assembly according to claim 1, wherein said first and/or second
10 portion include eyelets through which engagement means may pass.
3. An assembly according to claim 2, wherein said engagement means are in the form of threaded fasteners.
4. An assembly according to any one of claims 1 to 3, wherein said barrier wall member is a planar sheet having a frame providing said periphery.
- 15 5. An assembly according to any one of the preceding claims, wherein said barrier wall member is metal mesh.
6. An assembly according to any one of claims 1 to 4, wherein said barrier wall member is formed of plastics material.
7. A cargo barrier assembly for a motor vehicle, substantially as herein
20 described with reference to Figure 4.

Dated 27 March, 2002

Caddy Storage Marketing Pty. Ltd.

Patent Attorneys for the Applicant/Nominated Person

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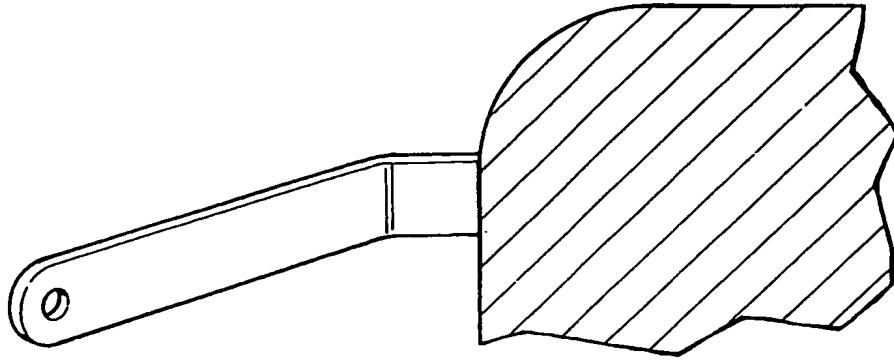


FIG. 1
PRIOR ART

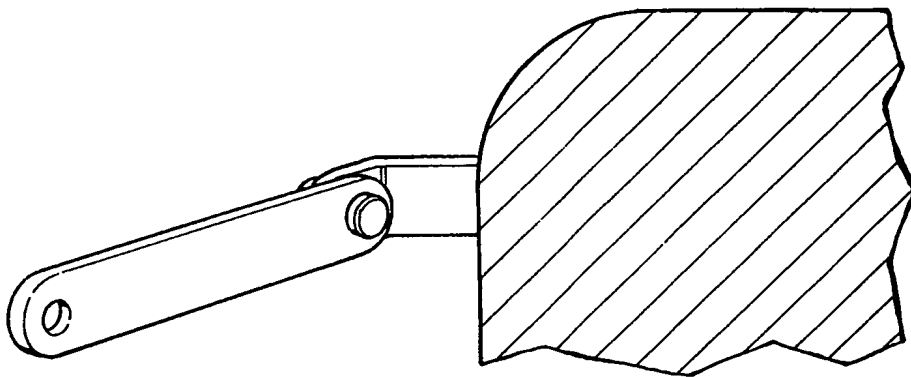


FIG. 2
PRIOR ART

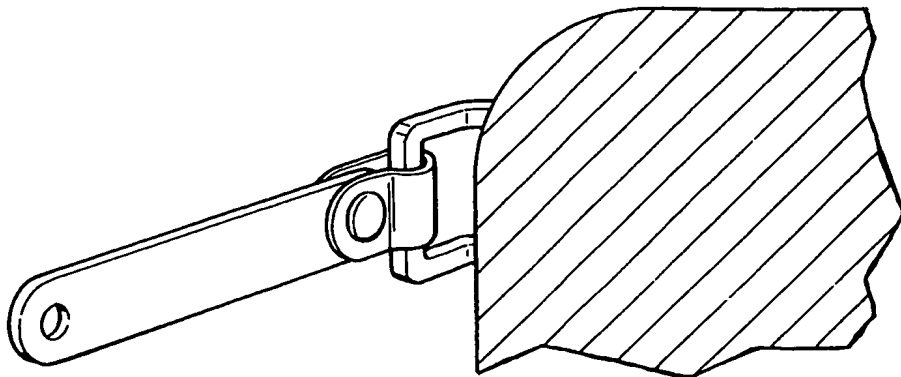


FIG. 3
PRIOR ART

5
6
8
9

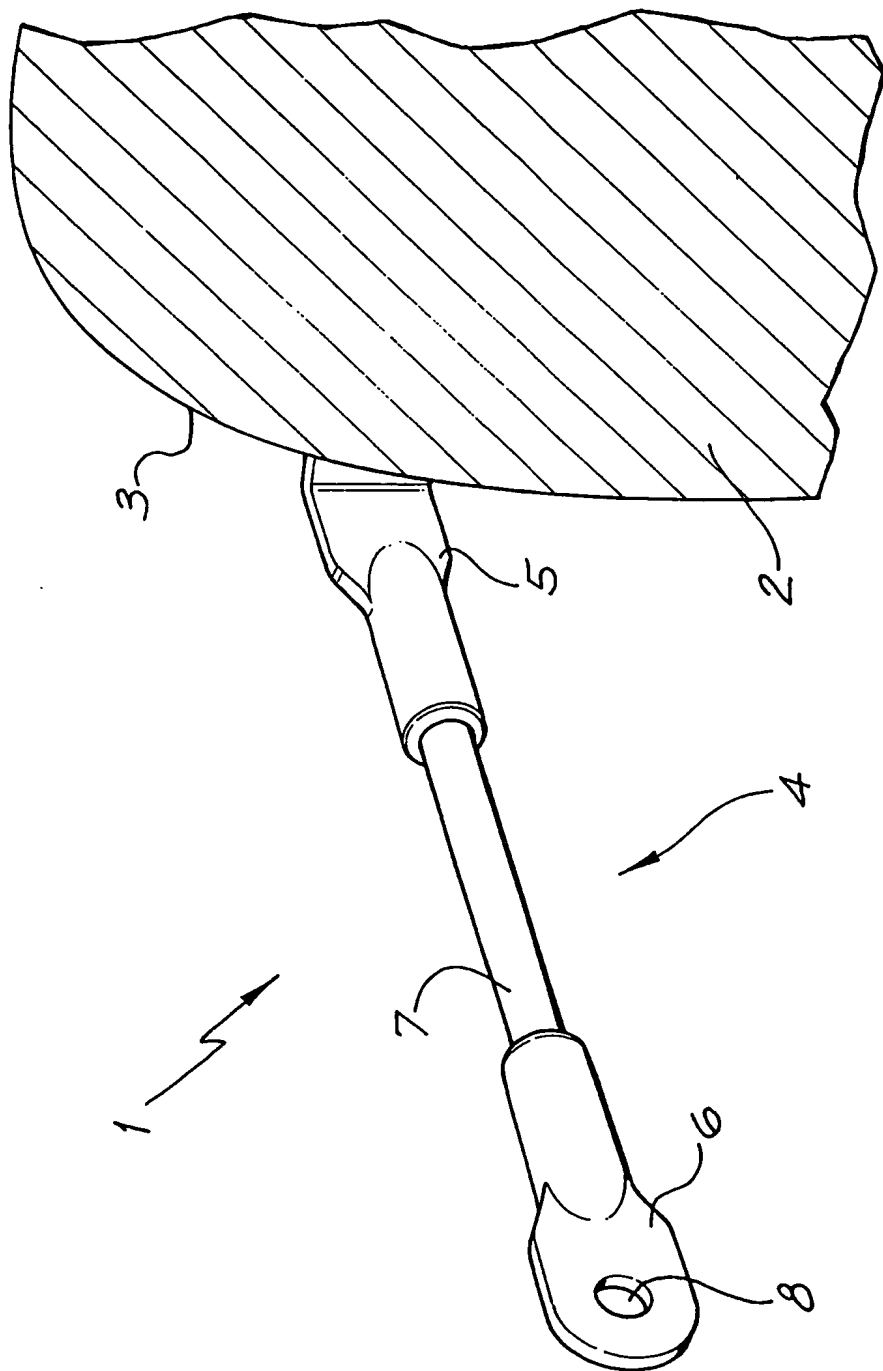


FIG. 4